

REMARKS

Claims 12-37 are pending in this application. Claims 1-11 were previously cancelled. Claim 17 has been amended. New claims 29-37 have been added. New claims 29-37 are supported by original claims 1-11 and elsewhere in the specification. No new matter has been added to the application by the foregoing amendment or new claims.

Claims 16 and 17 have been rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 4,334,013 ("Bergthaller et al.") For brevity, reference is made to the Office Action at pages 3-6 for the reasons for rejection. Applicants respectfully traverse this rejection and request that it be reconsidered and withdrawn.

In order to support an anticipation rejection under §102(b), each and every element of the claimed invention or its substantial equivalent must be found within the four corners of a single reference cited by the Examiner to anticipate. Hybritech Inc. v. Monoclonal Antibodies, Inc., 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986).

Claims 16 and 17 include a crosslinking agent. Bergthaller et al. are completely silent about crosslinking agents. The teachings of Bergthaller et al. do not anticipate claims 16 and 17 because Bergthaller et al. do not suggest or disclose a crosslinking agent as required by claims 16 and 17.

The Office Action alleges that $\text{CH}_2=\text{CR}^{10}\text{CO}-\text{Y}$ (wherein R^{10} is a hydrogen atom, an alkyl group, especially a $\text{C}_1\text{-C}_4$ alkyl) in which Y is $-\text{O}-(-\text{CH}_2)_4-\text{SO}_3^-$, falls under monomer (c1). See page 5 of the Office Action. However, claims 16 and 17 describe monomer (c1) as a (meth)allylsulfonic acid (salt), the rational formula of which is $\text{CH}_2=\text{CH}-\text{CH}_2-\text{SO}_3\text{H}$ or $\text{CH}_2=\text{CH}(\text{CH}_3)-\text{CH}_2-\text{SO}_3\text{H}$. As understood, monomer (c1) of the present invention does not have the $-\text{COO}-$ fragment. Therefore Bergthaller et al. do not teach monomer (c1).

Since the Bergthaller et al. reference teaches neither monomer (c1) nor the crosslinking agent (d), claims 16 and 17 and new claim 29 are not anticipated by Bergthaller et al. Applicants respectfully request that the §102 rejection of claims 16 and 17 be reconsidered and withdrawn.

Claims 23, 25 and 27 under 35 have been rejected U.S.C. §103(a) as being unpatentable over Bergthaller et al. in view of U. S. Patent No. 5,756,646 ("Nasu"). For brevity, reference is made to pages 6-7 of the Office Action for the reasons for rejection. Applicants respectfully traverse this rejection and request that the rejection be reconsidered and withdrawn.

The test of obviousness is usually interpreted in view of Graham v. John Deere Co., 383 U.S. 1 (1966) by determining: (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; and (3) the level of ordinary skill in the pertinent art. When doing so, the prior art cited by the Examiner must show that one of ordinary skill in the art at the time the invention was made would understand that the scope and contents of the prior art encompass the claims at issue.

When making a rejection under 35 U.S.C. § 103, the Examiner has the burden of establishing a prima facie case of obviousness. In re Fritch, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The Examiner can satisfy this burden only by showing an objective teaching in the prior art, or knowledge generally available to one of ordinary skill in the art, which would lead an individual to combine the relevant teachings of the references [and/or the knowledge] in the manner suggested by the Examiner. Id.; In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

The mere fact that the prior art could be modified does not make the modification obvious unless the prior art suggests the desirability of the modification. In re Fritch, 23 U.S.P.Q.2d at 1784; In re Laskowski, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989); In re Gordon, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

“It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious....’[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” In re Fritch, 23 U.S.P.Q.2d at 1784 (quoting In re Fine, 5 U.S.P.Q.2d at 1600).

“The ultimate determination of patentability must be based on consideration of the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence.” Manual of Patent Examining Procedure, (Rev. 1, Feb. 2003) § 716.01(d) and In re Oetiker, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

Claims 23, 25 and 27 depend (directly or indirectly) from claim 16. Claim 16 requires a crosslinking agent. As discussed above, Bergthaller et al. do not suggest or disclose a crosslinking agent. Nasu et al. does not remedy this deficiency. The Bergthaller et al. reference is related to peptizing agents for silver halide emulsions in the field of photographic materials, and completely silent about papermaking. On the other hand, the Nasu et al. reference is related to an agent for improving surface quality of paper, and is completely silent about photographic materials. Thus, there is no reason or motivation for combining these references.

In the paragraph bridging pages 6 and 7 of the Office Action, it is stated that Nasu et al. discloses an agent for improving surface quality of paper comprising an acrylamide resin composition obtained by hydrolyzing an acrylamide resin, which is obtained by **polymerizing an acrylamide monomer in the presence of urea compound**. The following paragraph concludes that it would have been obvious to one having ordinary skill in the art when the invention was made to add urea compound as taught by Nasu et al. during the polymerization process of acrylamide resin composition of Bergthaller et al. to achieve excellent effect for improving surface strength, tensile strength and internal strength of paper.

However, Nasu et al. teach that the agent for improving surface quality of paper comprising an acrylamide resin composition is obtained by **hydrolyzing an acrylamide resin**

which is obtained by polymerizing an acrylamide monomer in the presence of urea compound. The hydrolysis step is essential in the invention of Nasu et al. See col. 2, line 64 - col. 3, line 15. The paragraph states that the hydrolysis makes the acrylamide resin composition have a sequence different from the sequence of the conventional acrylamide resins, and this difference contributes to the improved surface strength, tensile strength and internal strength of paper coated with the acrylamide resin composition of Nasu et al. Therefore just the polymerization in the presence of a urea compound, without subsequent hydrolysis, will not result in the improved surface strength, tensile strength and internal strength. This important step has been overlooked.

Also, since the Bergthaller et al. reference does not pertain to papermaking, the reasoning that the skilled artisan would have added a urea compound as taught by Nasu et al. during the polymerization process of acrylamide resin composition of Bergthaller et al. to achieve excellent effect for improving surface strength, tensile strength and internal strength of paper, is not properly supported.

Another reason for the combination of references is set forth in the second, third, and fourth full paragraphs on page 7 of the Office Action. First, in the second paragraph, it is conceded that Bergthaller et al. is silent about a paper strength agent. In the third paragraph, it is stated that Nasu et al. discloses that the agent for improving surface quality of paper comprising an acrylamide resin composition provides paper with excellent surface strength, tensile strength and internal strength. Finally, in the fourth paragraph, it is alleged that the skilled artisan would have employed Bergthaller et als. copolymer containing (meth)acrylamide as a papermaking chemical as taught by Nasu et al. to improve surface strength, tensile strength and internal strength of paper.

Bergthaller et al. are completely silent about papermaking agents. There are numerous copolymers containing (meth)acrylamide. No reason is provided as to why Bergthaller et als. copolymer would have been particularly selected for the agent of Nasu et al. This rejection is based upon improper hindsight reconstruction. Thus, Applicants respectfully request that this rejection be reconsidered and withdrawn.

In view of the remarks above, reconsideration and withdrawal of the rejections and favorable allowance of all claims is respectfully requested.

Respectfully submitted,

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